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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,287	06/21/2003	Daniel Luch		6293

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Daniel Luch
17161 Copper Hill Drive
Morgan Hill, CA 95037

EXAMINER

LAM, CATHY FONG FONG

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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10/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/600,287

Applicant(s)

LUCH, DANIEL

Examiner

Cathy Lam

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 01, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. Claim 36 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the disclosure (¶ 16), the thickness of the electrodeposited layer is 0.001 inch or more, which contradicts to of what is being claimed.

3. Claims 39, 40 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 39 line 4, it is unclear whether "said second material" is equivalent to "second molded material"?

In claim 40, it is unclear whether "said first material" is equivalent to "first molded material" as mentioned in claim 39.

In claim 44, there is lack of antecedent basis for "said planar structure".

Claim Rejections - 35 USC § 102

4. Claims 26-28, 31-32, 34-35, 38-42 and 43 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hans (US 4224118).

Applicant drafted some claims involve process limitations and functional language. Applicant is reminded that it is the product itself which must be new and unobvious, see *In re Pinkington* 162 USPQ 145, 147 (C.C.P.A. 1969). Product by process claims are not patentably distinct over product claims unless it can be shown that the product produced by the process is in some manner measurably distinct from the product produced by another process, therefore there will be no weight given to the product by process and functional language in the claims.

Hans teaches an electroplated article comprised of a metal coating(s) and a plastic substrate (col 1 L 15-16). The metal coating(s) is selectively plated over the plastic substrate (col 1 L 8-9).

The plastic substrate is an injection molded thermoplastic, acrylonitrile butadiene styrene, which is a well known rubber/elastomeric material (col 2 L 4-5 & Applicant's own disclosure page 21 line 1).

A resinous stopoff (or mask) coating layer is formed onto part of the plastic substrate surface before metal coating (col 2 L 8-13). The examiner is taking the position that Han's electrolytically coated plastic substrate is a flexible planar web since the substrate is a rubber/elastomeric material.

Claim Rejections - 35 USC § 102/103

5. Claims 26-28, 30-32, 34-43 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kawai et al (US 4425262).

Kawai teaches an electroplated article comprised of an electroconductive resin composition and a metal coating. The electroconductive resin composition is comprised of an ethylene/propylene copolymer rubber material, carbon black, sulfur and trithiolcyanuric acid (or adhesion promoter) (col 2 L 12-58). The resin composition is molded into a shaped article (col 2 L 5). The metal coating is directly electroplated onto the shaped resin article (col 1 L 5-13 & col 2 L 2-7). The metal in the metal coating is nickel and copper metals (col 3 L 41-43). The examiner takes the meaning of "directly electroplated" as there is no surface treatment of pre-treatment step(s) exists.

The electroconductive resin composition has an electrical resistance of $< 300 \Omega\text{-cm}$, the electrical resistance is measured at 1 cm interval (col 3 L 22-29 & L 49-51).

Kawai does not stated any specific structure of his article, the examiner is taking the position that Kawai's electroplated article is a planar web structure.

Kawai is silent about the metal coating is patterned or selectively plated. The examiner is taking the position that whether metal coating is patterned or not, is part of the design scheme, and only one way or the other exists (i.e. either selectively patterned or not selectively patterned). Such design scheme is conventional.

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6. Claims 26-28, 31-32, 34-35, 37-43 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Adelman (US 4038042).

Adelman teaches a plastic composition which can be directly electroplated with a metal.

The plastic composition is an acrylonitrile-butadiene-styrene resin and is molded into a shaped article (col 2 L 5-8 & col 4 L 35-38). The resin further comprised of carbon black (col 4 L 45-46). The article has a volume resistivity of less than 25 Ω -cm (col 4 L 66-68).

The article is directly electroplated with a metal coating which includes metals such as nickel and chromium, etc. (col 7 L 20-28). The examiner takes "directly electroplated" with the meaning of no surface pre-treatment.

Adelman is silent about the metal coating is selectively coated (or patterned) over the plastic article. However, the examiner is taking the position that whether the metal coating is selectively coated or not, is one of the conventional design schemes. The examiner also takes the position that Adelman's article is a planar web structure.

Claim Rejections - 35 USC § 103

7. Claims 26-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al (US 4425262) or Adelman (US 4038042) in view of Hans (US 4224118).

Kawai and Adelman both teach an electroconductive resin composition material which is molded into an article. The resin article is directly electroplated with a metal material without any surface pre-treatment.

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Kawai and Adelman however are silent about the metal coatings are selectively plated (or patterned).

Hans teaches an article comprised of a molded plastic substrate and a metal coating. The metal coating is selectively electroplated onto the surface of the plastic substrate (col 1 L 8-9 & L 15-21).

In view of the prior art teachings, one skill in the art would fabricate a selectively electroplated article because it is well known to pattern a layer by using a mask or a resist as taught by Hans (col 1 L 53-57).

Conventional electronic devices and electronic circuit boards all comprised of an electroconductive layer plated over a non-electroconductive or a dielectric layer. It is obvious that applicant's selective electroplated structure is used as an electronic device.

Regarding to the thickness of the electroconductive material as stated in claim 36, the examiner is taking the position that such thickness can be determined and achieved without difficulty because it is just a matter of design choice.

Furthermore, regarding to the second material being a fabric web, the examiner is taking the position that a fiber reinforced substrate is well known to be used as insulating substrate in printed wiring boards.

Claims 33-35 and 42, these claims are intended use, the examiner is taking the position that since the above cited prior art meet the claimed limitations, it would be obvious that the prior art products can be used to perform the same job.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Cathy Lam
Primary Examiner
Art Unit 1794

cfl
October 05, 2007